Complete Application
For Publication

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A METHOD FOR DISPLAYING DECORATIVE OBJECTS

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not Applicable

CROSS REFERENCE TO RELATED APPLICATIONS

The present application is a continuation-in-part of U.S. Serial No. 09/433,904, filed November 5, 1999, now abandoned; which is a continuation of U.S. Serial Number 09/238,326, filed January 26, 1999, now U.S. Patent No. 6,016,912; which is a continuation of U.S. Serial No. 09/081,838, filed May 19, 1998, now U.S. Patent No. 5,878,883; which is a continuation of U.S. Serial No. 08/867,431, filed May 30, 1997, now U.S. Patent No. 5,775,502. Each of the above applications is hereby expressly incorporated herein by reference in its entirety.

BACKGROUND

The present invention is related to methods for transporting various items such as floral containers, potted plants, and vases, wherein the items are bondingly connected to a surface having a bonding layer thereon for minimizing movement and disturbance of the items during transportation and devices used in such methods of transport, and to method of creating scenes.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of a shipping device having a floral assembly connected thereto constructed for use in accordance with the present invention.

Figure 2 is a sectional view of the shipping device of the present invention shown with a layer of release material.

Figure 3 is a sectional view of an alternate embodiment of a shipping device.

Figure 4 is a sectional view of another alternate version of a shipping device.

Figure 5 is a perspective view of another version of a shipping device.

Figure 6 is a perspective view of yet another version of a shipping device.

Figure 7 is a perspective view of still another version of a shipping device.

Figure 8 is a sectional view of another version of a shipping device.

Figure 9 is a perspective view of yet another version of a shipping device.

Figure 10 is a perspective view of still another version of a shipping device.

Figure 11 is a perspective view of a decorative scene displayed upon a base coated with a connecting bonding material

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Shown in Figures 1 and 2 and designated therein by the reference numeral 10 is a shipping device comprising a sheet of a rigid or semi-rigid extruded thermoplastic material. The use of a plastic or resinous material avoids problems encountered in using cardboard as a shipping device. Cardboard has a tendency to delaminate and weaken when wet. Cardboard

also tends to warp or curl as atmospheric conditions such as humidity and barometric pressure change. The shipping device 10 in one embodiment comprises a sheet 11 which has a first edge 12, a second edge 14, a third edge 16 and a fourth edge 18. The sheet 11 has an upper surface 20 and a lower surface 22. Disposed upon at least a portion of the upper surface 20 is a bonding material 24. A removable layer of release (masking) material 25 may be disposed upon the bonding material 24 (see Figure 2) to protect the bonding properties of the bonding material 24 prior to use of the device 10. The shipping device 10 is preferably constructed from a sheet of thermoplastic material extruded from an extrusion apparatus such as is well known to a person of ordinary skill in the art. After extrusion, the sheet of extruded thermoplastic material is cut into the sheets 11, after which a bonding material is applied to a surface of the sheets 11 to form the shipping device 10. The bonding material 24 can be applied in any acceptable manner such as spraying or brushing. Alternatively, the bonding material can be provided as a sheet which is then applied to the sheet of extruded thermoplastic material. Further, release material can be disposed upon the bonding material after the bonding material is applied. The layer of release material 25 can then be removed from the shipping device 10 prior to its use. Also, as will be understood by a person of ordinary skill in the art, the bonding material 24 (and release material 25, if used) can be applied to the sheet of extruded material before the sheet of extruded material is cut into sheets 11 for use as the shipping device 10. The bonding material may be applied to only a portion of the sheet, for example as a generally circular area near the center of the sheet, or as several circular areas disposed in a regular pattern upon the sheet.

The shipping device 10 is used to bondingly support a floral assembly 26 comprising a floral container 28 and a floral item. For example, as shown in Figure 1, the floral container 28 having an upper end 30 and a lower end 32 and having a floral grouping 34 disposed therein is placed upon the upper surface 20 of the shipping device 10. The release material 25, if present, is removed prior to disposing the floral container 28 on the shipping device 10. The lower end 32 of the floral container is bondingly connected to the upper surface 20 by the bonding material 24 such that the floral container 28 is firmly and securely attached in a generally upright orientation to the upper surface 20 of the shipping device 10. The floral container28 may be any rigid container capable of holding a floral item, and may comprise a flower pot, a vase or a bedding tray, for example, or any other floral container, such as a foam container known to one of ordinary skill in the floral industry.

Other embodiments of the invention are shown in Figures 3-10. Figure 3 shows a shipping device 10a comprising a sheet 11a which is exactly the same as the device 10 shown in Figures 1 and 2 except device 10a also comprises a rim 40 which extends around the perimeter of the sheet 11a for catching spillage of water or growth media. Figure 4 is substantially similar to either of devices 10 or 10a except for a plurality of corrugations 42 extending from a lower surface 22b of a sheet 11b. The corrugations 42 function to provide support and rigidity to the device 10b. The corrugations 42 may be formed during the extrusion process or may be applied to the lower surface 22b in a separate step. Shown in Figure 5 is a shipping device 10c comprising a sheet 11c which is substantially similar to of any of devices 10-10b except the device 10c further has a plurality of support elements 44 disposed on an upper surface 20c of the sheet 11c. These support elements 44 may comprise

corrugations formed during the extrusion process or may be applied separately after the extrusion process. Figure 5 shows but one version of the configuration of the support elements 44 but one of ordinary skill in the art will readily understand that the support elements 44 may comprise other patterns or configurations such as circles or diagonally-oriented members or ridges.

Shown in Figure 6 is another shipping device 10d comprising a sheet 11d which is essentially the same as the shipping device 10b except that the device 10d has diagonally-oriented corrugations on a lower surface 22d. Shown in Figure 7 is a shipping device 10e comprising a sheet 11e which is substantially similar to shipping device 10d except a lower surface 22e of the sheet 11e also has corrugations 48 which are diagonally oriented and which are oriented perpendicularly to corrugations 46 thereon, forming a criss-cross, or cross-hatching pattern, for additional support.

Shown in Figure 8 is a shipping device 10f substantially similar to any of devices 10-10a, or 10c, comprising a sheet 11f having corrugations 50 which enclose a plurality of void spaces 52 between the corrugations 50 and a lower surface 22f of the sheet 11f. In an alternative version, there may be no void spaces between the corrugations 50 and the sheet 11f. The shipping device 10f may be formed by extrusion or any other method described herein or which is known to one of ordinary skill in the art.

Shown in Figure 9 is a shipping device 10g substantially similar to any of devices 10-10f shown above except an upper surface 20g of the sheet 11g has alternating strips of bonding material 24a and 24b disposed thereon. The alternating strips (which may be spots rather than strips) have different properties, such as being tacky at either low or high temperatures, or having different levels of tackiness at the same temperature, as explained in further

detail below. Shown in Figure 10 is a shipping device 10h similar to that of device 10g in Figure 9 except the strips of bonding material 24a and 24b are criss-crossed rather than parallel. Further, the criss-crossed strips may alternate in the manner of the device 10g. Further, the different bonding materials are at least partially disposed in separate locations on the shipping device. The term "separate locations" means that at least a portion of the shipping device is covered only by one type of bonding material and at least another portion of the shipping device is covered by a different type of bonding material. Included in this definition are different, yet abutting, bonding materials disposed on the bonding surface. A variety of other arrangements of the bonding material will be readily apparent to the person of ordinary skill in the art.

The floral assembly 26 attached to any of shipping devices 10-10h is rendered substantially immobile thereupon and may be further cushioned, protected, or immobilized by packing material (not shown) disposed about the floral assembly 26. Such packing materials are well known to those of ordinary skill in the art.

The shipping devices 10-10h may be any shape which functions in accordance with the present invention. The shipping devices 10-10h, may, for example, be square, rectangular, circular or any other geometric shape which enhances the function of the sheet for the purpose disclosed herein. The shipping devices 10-10h may be plastic, thermoplastic, resin, recycled resin, or any moldable, rigid or semi-rigid material. The shipping devices 10-10h may be a laminar combination of any of the above materials and may be constructed by methods other than extrusion, such as molding. Any thickness of the shipping devices 10-10h may be utilized in accordance with the present

invention as long as the shipping devices 10-10h functions to support the floral assembly disposed thereupon. Preferably the shipping devices 10-10h are thin to reduce their weight, and the corrugations or other support members enhance the strength and rigidity of a thin shipping device.

The term vase, flower pot, or bedding tray refers to any type of container used for holding a floral grouping or single floral cuttings. "Floral item" or "floral grouping" as used herein means cut fresh flowers, bedding plants, cuttings, entire plants, artificial flowers, a single flower either fresh and/or artificial plants or other floral materials and may include other secondary plants and/or ornamentation or artificial or natural materials which add to the aesthetics of the overall floral arrangement. The floral grouping generally comprises a bloom or foliage portion and a stem portion. However, it will be appreciated that the floral grouping may consist of only a single bloom or only foliage (not shown). The term "floral grouping" may be used interchangeably herein with the term "floral arrangement".

The sheets which comprise shipping devices 10-10h could be stacked together, attached or unattached into a pad. Alternatively, the sheets could be provided in a roll having score marks or perforations for easy separation, or the individual sheet portions of the roll could be cut or severed from the roll at the point of use.

In some embodiments it may be preferred that the bonding material be an adhesive which maintains its tackiness at low temperatures, e.g., near or below 32°F. Such adhesives are well known in the art, and an example of such an adhesive is Adhesive No. 9211 supplied by Dyna-Tech Adhesives of Grafton, WV. In other embodiments it may be preferable to use an adhesive which maintains its tackiness even at the high temperatures that might be

encountered in a delivery truck on a hot summer day, such as about 120°-130°F. Such adhesives are also known in the art and an example of such an adhesive is Adhesive No. 9410DL from Dyna-Tech. Most preferable would be to have a bonding material on the shipping device which would be functional in both of the temperature regimes described above, for example wherein the tackiness of the adhesive is maintained from about 25°F to about 130°F. Such an adhesive can be obtained by mixing adhesive 9211 and 9410DL in approximately equal proportions. As will be readily appreciated by one of ordinary skill in the art, any number of adhesive or cohesive bonding materials are commercially available which would function in accordance with the present invention as described herein, as long as they firmly adhere to the upper surface and to the object disposed thereon.

In an alternative embodiment of the invention, two or more bonding materials with differing levels of tackiness or differing tack properties may be applied to the same bonding surface of the shipping device 10. For example, the bonding surface may have strips or spots of adhesive having a low-temperature tackiness (e.g., Dyna-Tech 9211) and also may have strips or spots of adhesive having a high-temperature tackiness (e.g., Dyna-Tech 9410DL). The spots or strips may alternate with each other (Figure 9), or may criss-cross (Figure 10). Also, it may be preferable to employ different adhesives having different adhesive properties when "wet" and "dry". For example an adhesive which continues to be tacky even when wet for holding a wet object could alternate with an adhesive which is most tacky when dry for holding a dry object. Or adhesives having higher tackiness could alternate with adhesives having lower tackiness.

Also, fragrances, insect repellents, and pheromones may be provided on the shipping device to attract or repel insects, animals, or humans. Further, the different types of bonding material may have different colors to facilitate identification of which strip of bonding material has a particular bonding property, such as bonding ability at low temperatures. Further, combinations of shipping devices having different properties and/or sheets with different properties could be provided together as a kit (e.g., in a connected or unconnected pad).

Another use for the device described herein as shown in Figure 11 is as a base 10i on which small houses, scenes, etc. could be created or placed. The base 10i coated with a connecting bonding material 24i would provide a means for decorating an area so as to create a scene 54 or display a house 56 or other object. This base 10i could be partly or entirely coated with the connecting bonding material 24i and materials such as grasslike materials 58, miniature animals 60 and miniature humans 62, trees 64 and grass, and other small items could also be applied. They would be held in place by the connecting bonding material 24i on the upper surface 20i.

The term "connecting bonding material or bonding means" when used herein means an adhesive, frequently a pressure sensitive adhesive, or a cohesive material or any other bonding material which functions as a bonding material in accordance with the invention described herein. When the bonding material is a cohesive, a similar cohesive material must be present on a surface of the object (for example, the house 56 of Figure 1) which will be disposed on the bonding surface of the shipping device. Preferably, when the bonding material is an adhesive, the cohesive forces between adhesive molecules within the foam are stronger than the adhesive forces between the adhesive and the

item placed thereon so that when the floral assembly is removed from the shipping device 10 a minimum of adhesive is left on the floral assembly.

It will be appreciated by one of ordinary skill in the art that the floral container 28 displayed in Figure 1 is but one of the great variety of shapes of objects, items or containers which may be used in accordance with the present invention.

The term "floral grouping" or "floral item" when used herein generally means a plant having a bloom portion and a stem portion. Further, the floral grouping 34 may comprise a root portion (not shown) as well. However, it will be appreciated that the floral grouping may consist of only a single bloom or only foliage, or a botanical item (not shown), or a propagule (not shown). The term "floral grouping" may also be used interchangeably herein with the terms "botanical item" and/or "propagule" and may include a plant having only foliage and no blooms.

The term "growing medium" when used herein means any liquid, solid or gaseous material used for plant growth or for the cultivation of propagules, including organic and inorganic materials such as soil, humus, perlite, vermiculite, sand, water and including the nutrients, fertilizers or hormones or combinations thereof required by the plants or propagules for growth. The term "botanical item" when used herein means a natural or artificial herbaceous or woody plant, taken singly or in combination. The term "botanical item" also means any portion or portions of natural or artificial herbaceous or woody plants including stems, leaves, flowers, blossoms, buds, blooms, cones, or roots, taken singly or in combination, or in groupings of such portions such as bouquet or floral grouping. The term "propagule" when used herein means any

structure capable of being propagated or acting as an agent of reproduction including seeds, shoots, stems, runners, tubers, plants, leaves, roots or spores.

Changes may be made in the construction and the operation of the various components, elements and assemblies described herein or in the steps or the sequence of steps of the methods described herein without departing from the spirit and scope of the invention as defined in the following claims.